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LEE & HAYES PLLC
421 W RIVERSIDE AVENUE SUITE 500
SPOKANE, WA 99201

EXAMINER

LY, ANH

ART UNIT

PAPER NUMBER

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12

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application N .

09/544,253

Applicant(s)

PARUPUDI ET AL.

Examiner

Anh Ly

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 02 April 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-8 and 10-64 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-8 and 10-64 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☒ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____
- 4) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

DETAILED ACTION

Request Continued Examination

1. The request filed on 04/02/2003 for a Request for Continued Examination (RCE) under 37 CFR 1.114 based on parent Application No. 09/612,766 is acceptable and a RCE has been established. An action on the RCE follows.
2. Claim 9 has been cancelled (Page #6 dated 10/16/2002).
3. Claims 61-64 are added (Page #9 dated 03/11/2003).
4. Claims 1-8 and 10-64 are pending in this application.

Claim Rejections - 35 USC § 103

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein

were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

7. Claims 1-8, 10-19, 24-28, 30-31, 37-43, 48-49 and 54-64 are rejected under 35 U.S.C. 103(a) as being unpatentable over US Patent No. 5,295,261 issued to Simonetti in view of US Patent No. 6470,344 issued to Kothuri et al. (herein Kothuri).

With respect to claim 1, Simonetti discloses one or more computer-readable media (disks and tapes: col. 1, lines 60-68); and a hierarchical tree structure resident on the media and comprising multiple nodes each of which represent geographical divisions of the Earth (the tree structure storing geographical information such as country, state and city: col. 4, lines 6-14, col. 5, lines 10-15 (topological map comprising a plurality of nodes and links representing the navigational field or nodes; and col. 8, lines 12-26; also see col. 13, lines 27-44), individual nodes comprising an entity identification (EID) (identifier number: col. 8, lines 12-26) that is unique to the node, serving as a basis by which attributes can be assigned to goods or services associated with an individual node (see abstract, figs, 3(A), 3(B) and 3(C), col. 8, lines 12-35 and col. 9, lines 1-28).

As to the limitation, "multiple nodes comprising parent and children nodes, at least some of the parent nodes and their associated children nodes having EID that are unique for the associated node," Simonetti does not explicitly indicate that at least some

of parent nodes and their associated children nodes have EIDs that are unique for the associated node.

However, Kothuri discloses unique identifier of the corresponding node: an identifier of a parent node and an identifier of a child/sibling node (col. 4, lines 1-14).

Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to combine the teachings of Simonetti with the teachings of Kothuri so as to obtain unique identifier for the associated node (). This combination would have a system that provides for effective management of data that are inherently multi-dimensional (e .g., geographical, multi-media) (Kothuri – col. 3, lines 18-31) and each higher-level node is designed to encompass or contain its children nodes (Kothuri – col. 3, lines 50-55). Also, this system has a way to improve the searching and retrieving a tree structure (Simonetti - col. 5, lines 20-23) and optimization for search on a plurality of search values without the need to generate and store search table for each search value values (Simonetti - col. 5, lines 28-32) and reduce the amount of required storage area (Simonetti - col. 4, lines 60-64) in the searching in the hierarchical tree structures environment.

With respect to claims 2-8, Simonetti discloses wherein the one or more computer-readable media comprise one or more networks; wherein the nodes comprise political or natural entities, wherein the political or natural entities comprises one or more of the following: continents, countries, oceans, states, counties and cities; wherein the nodes comprise infrastructure entities; one or more of the following: postal codes,

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area codes and time zones; public places and non-physical entities (see abstract, col. 1, lines 60-68; col. 4, lines 6-14 and col. 8, lines 12-26; also see col. 13, lines 27-44; col. 8, lines 12-26; and abstract, figs. 3(A), 3(B) and 3(C), col. 8, lines 12-35 and col. 9, lines 1-28).

With respect to claim 10-19, Simonetti wherein one of the attributes comprises a name attribute; a neutral ground truth name attribute; wherein one of the attributes comprises a geographic attribute; a latitude/longitude attribute; a relative importance index; a contextual parent attribute; a source attribute; a start/end dates attribute; a modification date attribute and a status attribute (col. 1, lines 60-68; col. 4, lines 6-14 and col. 8, lines 12-26; also see col. 13, lines 27-44; col. 8, lines 12-26; and abstract, figs. 3(A), 3(B) and 3(C), col. 8, lines 12-35 and col. 9, lines 1-28).

With respect to claim 24, Simonetti discloses one or more computer-readable media; a first hierarchical tree structure having multiple nodes associated with a first context; at least one second hierarchical tree structure having multiple nodes associated with a second context (navigational data tree structures; col. 8, lines 1-11); and at least one node from the at least one second hierarchical tree structure being linked with one node on the first hierarchical tree structure by a link that is configured to enable a complete context to be derived from the first and second contexts, individual nodes having unique IDs that can serve as a basis by which attributes can be assigned to goods or services (col. 1, lines 60-68; col. 4, lines 6-14 and col. 8, lines 12-26; also see col. 13, lines 27-44; col. 8, lines 12-26; and abstract, figs. 3(A), 3(B) and 3(C), col. 8, lines 12-35 and col. 9, lines 1-28).

As to the limitation, "multiple nodes comprising parent and children nodes, at least some of the parent nodes and their associated children nodes having EID that are unique for the associated node," Simonetti does not explicitly indicate that at least some of parent nodes and their associated children nodes have EIDs that are unique for the associated node.

However, Kothuri discloses unique identifier of the corresponding node: an identifier of a parent node and an identifier of a child/sibling node (col. 4, lines 1-14).

Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to combine the teachings of Simonetti with the teachings of Kothuri so as to obtain unique identifier for the associated node (). This combination would have a system that provides for effective management of data that are inherently multi-dimensional (e .g., geographical, multi-media) (Kothuri – col. 3, lines 18-31) and each higher-level node is designed to encompass or contain its children nodes (Kothuri – col. 3, lines 50-55). Also, this system has a way to improve the searching and retrieving a tree structure (Simonetti - col. 5, lines 20-23) and optimization for search on a plurality of search values without the need to generate and store search table for each search value values (Simonetti - col. 5, lines 28-32) and reduce the amount of required storage area (Simonetti - col. 4, lines 60-64) in the searching in the hierarchical tree structures environment.

With respect to claim 25-28 and 30-31, Simonetti discloses wherein the first and second contexts comprise a location context wherein the nodes of the first hierarchical

tree structure comprise geographical divisions of the Earth; wherein the nodes of the at least one second hierarchical tree structure comprise physical and/or logical entities; wherein the first and the at least one second hierarchical tree structures comprise a plurality of attributes, two of which comprising: an identification that is unique to a node; and information that pertains to the tree with which the node is associated ; one or more goods or services associated with one or more of the nodes of the at least one second hierarchical tree structure and wherein the first hierarchical tree structure to comprises a standardized view of the Earth, and the at least one second hierarchical tree structure comprises an organization-specific view of at least a portion of the Earth, the organization-specific view comprising a physical/logical entity that links into specific portions of the Earth (col. 1, lines 60-68; col. 4, lines 6-14 and col. 8, lines 12-26; also see col. 13, lines 27-44; col. 8, lines 12-26; and abstract, figs. 3(A), 3(B) and 3(C), col. 8, lines 12-35 and col. 9, lines 1-28).

With respect to claim 37, Simonetti discloses accessing first and one or more second hierarchical tree structures that are resident on one or more computer-readable media, each tree structure having multiple nodes, the nodes of the first hierarchical tree structure being associated with a first context, the nodes of the one or more second hierarchical tree structures being associated with a second context (navigational data tree structures; col. 8, lines 1-110; and a traversing multiple nodes of at least one of the tree structures to derive a context (col. 8, lines 20-26), individual nodes having unique IDs that can serve as a basis by which attributes can be assigned to goods or services (col. 1, lines 60-68; col. 4, lines 6-14 and col. 8, lines 12-26; also see col. 13, lines 27-

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44; col. 8, lines 12-26; and abstract, figs. 3(A), 3(B) and 3(C), col. 8, lines 12-35 and col. 9, lines 1-28).

As to the limitation, "multiple nodes comprising parent and children nodes, at least some of the parent nodes and their associated children nodes having EID that are unique for the associated node," Simonetti does not explicitly indicate that at least some of parent nodes and their associated children nodes have EIDs that are unique for the associated node.

However, Kothuri discloses unique identifier of the corresponding node: an identifier of a parent node and an identifier of a child/sibling node (col. 4, lines 1-14).

Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to combine the teachings of Simonetti with the teachings of Kothuri so as to obtain unique identifier for the associated node (). This combination would have a system that provides for effective management of data that are inherently multi-dimensional (e.g., geographical, multi-media) (Kothuri – col. 3, lines 18-31) and each higher-level node is designed to encompass or contain its children nodes (Kothuri – col. 3, lines 50-55). Also, this system has a way to improve the searching and retrieving a tree structure (Simonetti - col. 5, lines 20-23) and optimization for search on a plurality of search values without the need to generate and store search table for each search value values (Simonetti - col. 5, lines 28-32) and reduce the amount of required storage area (Simonetti - col. 4, lines 60-64) in the searching in the hierarchical tree structures environment.

With respect to claim 38-43, Simonetti wherein the traversing derives a location context; wherein the nodes of the first hierarchical tree comprise geographical divisions of the Earth; wherein the nodes of the one or more second hierarchical tree comprise physical and/or logical entities; wherein the traversing comprises traversing at least one node on each tree to derive the context; wherein the context comprises a location and wherein the first and one or more second hierarchical tree structures comprise at least one node pair 14 that is linked (col. 1, lines 60-68; col. 4, lines 6-14 and col. 8, lines 12-26; also see col. 13, lines 27-44; col. 8, lines 12-26; and abstract, figs. 3(A), 3(B) and 3(C), col. 8, lines 12-35 and col. 9, lines 1-28).

With respect to claim 48, Simonetti discloses access first and second hierarchical tree structures, each tree structure having multiple nodes, the nodes of the first hierarchical tree structure being associated with a first location context, the nodes of the second hierarchical tree structure being associated with a second location context, at least one node of the second hierarchical tree structure being linked with a node of the first hierarchical tree structure; and traverse at least one node of each tree structure to derive a location context, at least one node in a traversal path that leads to a root node of the second hierarchical tree structure being linked with a node of the first hierarchical tree structure, individual nodes having unique IDs that can serve as a basis by which attributes can be assigned to goods or services (col. 8, lines 20-26; col. 1, lines 60-68; col. 4, lines 6-14 and col. 8, lines 12-26; also see col. 13, lines 27-44; col. 8, lines 12-26; and abstract, figs. 3(A), 3(B) and 3(C), col. 8, lines 12-35 and col. 9, lines 1-28).

As to the limitation, "multiple nodes comprising parent and children nodes, at least some of the parent nodes and their associated children nodes having EID that are unique for the associated node," Simonetti does not explicitly indicate that at least some of parent nodes and their associated children nodes have EIDs that are unique for the associated node.

However, Kothuri discloses unique identifier of the corresponding node: an identifier of a parent node and an identifier of a child/sibling node (col. 4, lines 1-14).

Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to combine the teachings of Simonetti with the teachings of Kothuri so as to obtain unique identifier for the associated node (). This combination would have a system that provides for effective management of data that are inherently multi-dimensional (e .g., geographical, multi-media) (Kothuri – col. 3, lines 18-31) and each higher-level node is designed to encompass or contain its children nodes (Kothuri – col. 3, lines 50-55). Also, this system has a way to improve the searching and retrieving a tree structure (Simonetti - col. 5, lines 20-23) and optimization for search on a plurality of search values without the need to generate and store search table for each search value values (Simonetti - col. 5, lines 28-32) and reduce the amount of required storage area (Simonetti - col. 4, lines 60-64) in the searching in the hierarchical tree structures environment.

With respect to claim 49, Simonetti discloses the computing device automatically determines its location context (col. 8, lines 12-26).

With respect to claim 54, Simonetti discloses defining a hierarchical tree structure comprising multiple nodes that each can define a physical or logical entity; associating one or more goods or services with one or more of the nodes; and traversing one or more of the multiple nodes to discover a good or service (abstract, see figs: 3(A), 3(B) and 3(C), col. 8, lines 12-35 and col. 9, lines 1-28; col. 5, lines 59-68 and col. 6, lines 1-7).

As to the limitation, "multiple nodes comprising parent and children nodes, at least some of the parent nodes and their associated children nodes having EID that are unique for the associated node," Simonetti does not explicitly indicate that at least some of parent nodes and their associated children nodes have EIDs that are unique for the associated node.

However, Kothuri discloses unique identifier of the corresponding node: an identifier of a parent node and an identifier of a child/sibling node (col. 4, lines 1-14).

Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to combine the teachings of Simonetti with the teachings of Kothuri so as to obtain unique identifier for the associated node (). This combination would have a system that provides for effective management of data that are inherently multi-dimensional (e .g., geographical, multi-media) (Kothuri – col. 3, lines 18-31) and each higher-level node is designed to encompass or contain its children nodes (Kothuri – col. 3, lines 50-55). Also, this system has a way to improve the searching and retrieving a tree structure (Simonetti - col. 5, lines 20-23) and

optimization for search on a plurality of search values without the need to generate and store search table for each search value values (Simonetti - col. 5, lines 28-32) and reduce the amount of required storage area (Simonetti - col. 4, lines 60-64) in the searching in the hierarchical tree structures environment.

With respect to claims 55-56, Simonetti discloses linking one or more of the multiple nodes with another hierarchical tree structure that contains multiple nodes that each represent a geographical division of the Earth and traversing enables a current location to be determined (abstract, col. 8, lines 12-35, col. 9, lines 1-28; and col. 8, lines 12-36 and col. 13, lines 27-44).

With respect to claim 57, Simonetti discloses define a hierarchical tree structure comprising multiple nodes that each can define a physical or logical entity; associate one or more goods or services with one or more of the nodes; and traverse one or more of the multiple nodes to discover a good or service (abstract, see figs: 3(A), 3(B) and 3(C), col. 8, lines 12-35 and col. 9, lines 1-28; col. 5, lines 59-68 and col. 6, lines 1-7).

As to the limitation, "multiple nodes comprising parent and children nodes, at least some of the parent nodes and their associated children nodes having EID that are unique for the associated node," Simonetti does not explicitly indicate that at least some of parent nodes and their associated children nodes have EIDs that are unique for the associated node.

However, Kothuri discloses unique identifier of the corresponding node: an identifier of a parent node and an identifier of a child/sibling sibling node (col. 4, lines 1-14).

Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to combine the teachings of Simonetti with the teachings of Kothuri so as to obtain unique identifier for the associated node (). This combination would have a system that provides for effective management of data that are inherently multi-dimensional (e .g., geographical, multi-media) (Kothuri – col. 3, lines 18-31) and each higher-level node is designed to encompass or contain its children nodes (Kothuri – col. 3, lines 50-55). Also, this system has a way to improve the searching and retrieving a tree structure (Simonetti - col. 5, lines 20-23) and optimization for search on a plurality of search values without the need to generate and store search table for each search value values (Simonetti - col. 5, lines 28-32) and reduce the amount of required storage area (Simonetti - col. 4, lines 60-64) in the searching in the hierarchical tree structures environment.

With respect to claim 58, Simonetti discloses receiving input from a source that specifies information pertaining to physical and/or logical entities; processing the information to define a hierarchical tree structure having a context, the tree structure comprising multiple nodes each of which represent a separate physical or logical entity; linking at least one of the multiple nodes to a node of another tree structure having a context and multiple nodes that represent physical and/or logical entities, individual nodes having unique IDs that can serve as a basis by which attributes can be assigned to goods or services, the tree structures being configured for traversal in a manner that enables context to be derived from one or more of the nodes (col. 8, lines 20-26; col. 1, lines 60-68; col. 4, lines 6-14 and col. 8, lines 12-26; also see col. 13, lines 27-44; col. 8,

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lines 12-26; and abstract, figs. 3(A), 3(B) and 3(C), col. 8, lines 12-35 and col. 9, lines 1-28).

As to the limitation, "multiple nodes comprising parent and children nodes, at least some of the parent nodes and their associated children nodes having EID that are unique for the associated node," Simonetti does not explicitly indicate that at least some of parent nodes and their associated children nodes have EIDs that are unique for the associated node.

However, Kothuri discloses unique identifier of the corresponding node: an identifier of a parent node and an identifier of a child/sibling node (col. 4, lines 1-14).

Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to combine the teachings of Simonetti with the teachings of Kothuri so as to obtain unique identifier for the associated node (). This combination would have a system that provides for effective management of data that are inherently multi-dimensional (e.g., geographical, multi-media) (Kothuri – col. 3, lines 18-31) and each higher-level node is designed to encompass or contain its children nodes (Kothuri – col. 3, lines 50-55). Also, this system has a way to improve the searching and retrieving a tree structure (Simonetti - col. 5, lines 20-23) and optimization for search on a plurality of search values without the need to generate and store search table for each search value values (Simonetti - col. 5, lines 28-32) and reduce the amount of required storage area (Simonetti - col. 4, lines 60-64) in the searching in the hierarchical tree structures environment.

With respect to claims 59-60, Simonetti discloses the context that is derived comprising a location context (col. 8, lines 12-26); and receiving input from a source that specifies information pertaining to physical and/or logical entities; processing the information to define a hierarchical tree structure having a context, the tree structure comprising multiple nodes each of which represent a separate physical or logical entity; linking at least one of the multiple nodes to a node of another tree structure having a context and multiple nodes that represent physical and/or logical entities, the tree structures being configured for traversal in a manner that enables context to be derived from one or more of the nodes (col. 8, lines 20-26; col. 1, lines 60-68; col. 4, lines 6-14 and col. 8, lines 12-26; also see col. 13, lines 27-44; col. 8, lines 12-26; and abstract, figs. 3(A), 3(B) and 3(C), col. 8, lines 12-35 and col. 9, lines 1-28).

With respect to claim 61, Simonetti discloses one or more computer-readable media; and a hierarchical tree structure resident on the media and comprising multiple nodes each of which represent geographical divisions of the Earth, individual nodes comprising an entity identification (EID) that is unique to the node, EIDs serving as a basis by which attributes can be assigned to goods or services associated with an individual node (disks and tapes: col. 1, lines 60-68; the tree structure storing geographical information such as country, state and city: col. 4, lines 6-14, col. 5, lines 10-15 (topological map comprising a plurality of nodes and links representing the navigational field or nodes; and col. 8, lines 12-26; also see col. 13, lines 27-44; identifier number: col. 8, lines 12-26; and see abstract, figs. 3(A), 3(B) and 3(C), col. 8, lines 12-35 and col. 9, lines 1-28).

As to the limitation, "multiple nodes comprising parent and children nodes, at least some of the parent nodes and their associated children nodes having EID that are unique for the associated node; and wherein at least some of the nodes comprise a node selected from a group of nodes comprising: political entities, natural entities, infrastructure entities, and public places," Simonetti does not explicitly indicate that at least some of parent nodes and their associated children nodes have EIDs that are unique for the associated node; and nodes of political entities and public places.

However, Kothuri discloses unique identifier of the corresponding node: an identifier of a parent node and an identifier of a child/sibling node (col. 4, lines 1-14); and the areas of geographical information systems (GIS) (col. 6, lines 32-67 and col. 8, lines 18-39).

Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to combine the teachings of Simonetti with the teachings of Kothuri so as to obtain unique identifier for the associated node (). This combination would have a system that provides for effective management of data that are inherently multi-dimensional (e .g., geographical, multi-media) (Kothuri – col. 3, lines 18-31) and each higher-level node is designed to encompass or contain its children nodes (Kothuri – col. 3, lines 50-55). Also, this system has a way to improve the searching and retrieving a tree structure (Simonetti - col. 5, lines 20-23) and optimization for search on a plurality of search values without the need to generate and store search table for each search value values (Simonetti - col. 5, lines 28-32) and

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reduce the amount of required storage area (Simonetti - col. 4, lines 60-64) in the searching in the hierarchical tree structures environment.

With respect to claim 62, one or more computer-readable media; a first hierarchical tree structure having multiple nodes associated with a first context; at least one second hierarchical tree structure having multiple nodes associated with a second context; and at least one node from the at least one second hierarchical tree structure being linked with one node on the first hierarchical tree structure by a link that is configured to enable a complete context to be derived from the first and second contexts, individual nodes having unique IDs that can serve as a basis by which attributes can be assigned to goods or services; and wherein the nodes of the first hierarchical tree structure comprise geographical divisions of the Earth; wherein the first and the at least one second hierarchical tree structures comprise a plurality of attributes, one of which comprising information that pertains to the tree with which the node is associated (the tree structure storing geographical information such as country, state and city: col. 4, lines 6-14, col. 5, lines 10-15 (topological map comprising a plurality of nodes and links representing the navigational field or nodes; and col. 8, lines 20-26; col. 1, lines 60-68; col. 4, lines 6-14 and col. 8, lines 12-26; also see col. 13, lines 27-44; col. 8, lines 12-26; and abstract, figs. 3(A), 3(B) and 3(C), col. 8, lines 12-35 and col. 9, lines 1-28).

As to the limitation, "multiple nodes comprising parent and children nodes, at least some of the parent nodes and their associated children nodes having EID that are unique for the associated node," Simonetti does not explicitly indicate that at least some

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of parent nodes and their associated children nodes have EIDs that are unique for the associated node.

However, Kothuri discloses unique identifier of the corresponding node: an identifier of a parent node and an identifier of a child/sibling node (col. 4, lines 1-14).

Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to combine the teachings of Simonetti with the teachings of Kothuri so as to obtain unique identifier for the associated node (). This combination would have a system that provides for effective management of data that are inherently multi-dimensional (e.g., geographical, multi-media) (Kothuri – col. 3, lines 18-31) and each higher-level node is designed to encompass or contain its children nodes (Kothuri – col. 3, lines 50-55). Also, this system has a way to improve the searching and retrieving a tree structure (Simonetti - col. 5, lines 20-23) and optimization for search on a plurality of search values without the need to generate and store search table for each search value values (Simonetti - col. 5, lines 28-32) and reduce the amount of required storage area (Simonetti - col. 4, lines 60-64) in the searching in the hierarchical tree structures environment.

With respect to claim 63, accessing first and one or more second hierarchical tree structures that are a resident on one or more computer-readable media, each tree structure having multiple nodes, the nodes of the first hierarchical tree structure being associated with a first context, the nodes of the one or more second hierarchical tree structures being associated with a second context; and traversing multiple nodes of at

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least one of the tree structures to derive a context, individual nodes having unique IDs that can serve as a basis by which attributes can be assigned to goods or services; wherein the nodes of the first hierarchical tree comprise geographical divisions of the Earth; and wherein the traversing comprises traversing at least one node on each tree to derive the context (col. 8, lines 20-26; col. 1, lines 60-68; col. 4, lines 6-14 and col. 8, lines 12-26; also see col. 13, lines 27-44; col. 8, lines 12-26; and abstract, figs. 3(A), 3(B) and 3(C), col. 8, lines 12-35 and col. 9, lines 1-28; and the tree structure storing geographical information such as country, state and city: col. 4, lines 6-14, col. 5, lines 10-15 (topological map comprising a plurality of nodes and links representing the navigational field or nodes).

As to the limitation, "multiple nodes comprising parent and children nodes, at least some of the parent nodes and their associated children nodes having EID that are unique for the associated node," Simonetti does not explicitly indicate that at least some of parent nodes and their associated children nodes have EIDs that are unique for the associated node.

However, Kothuri discloses unique identifier of the corresponding node: an identifier of a parent node and an identifier of a child/sibling node (col. 4, lines 1-14).

Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to combine the teachings of Simonetti with the teachings of Kothuri so as to obtain unique identifier for the associated node (). This combination would have a system that provides for effective management of data that

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are inherently multi-dimensional (e.g., geographical, multi-media) (Kothuri – col. 3, lines 18-31) and each higher-level node is designed to encompass or contain its children nodes (Kothuri – col. 3, lines 50-55). Also, this system has a way to improve the searching and retrieving a tree structure (Simonetti - col. 5, lines 20-23) and optimization for search on a plurality of search values without the need to generate and store search table for each search value values (Simonetti - col. 5, lines 28-32) and reduce the amount of required storage area (Simonetti - col. 4, lines 60-64) in the searching in the hierarchical tree structures environment.

With respect to claim 64, access first and second hierarchical tree structures, each tree structure having multiple nodes, the nodes of the first hierarchical tree structure being associated with a first location context, the nodes of the second hierarchical tree structure being associated with a second location context, at least one node of the a second hierarchical tree structure being linked with a node of the first hierarchical tree structure: and traverse at least one node of each tree structure to derive a location context, at least one node in a traversal path that leads to a root node of the second hierarchical tree structure being linked with a node of the first hierarchical tree structure, individual nodes having unique IDs that can serve as a basis by which attributes can be assigned to goods or services (col. 8, lines 20-26; col. 1, lines 60-68; col. 4, lines 6-14 and col. 8, lines 12-26; also see col. 13, lines 27-44; col. 8, lines 12-26; the tree structure storing geographical information such as country, state and city: col. 4, lines 6-14, col. 5, lines 10-15 (topological map comprising a plurality of nodes and

links representing the navigational field or nodes; and abstract, figs. 3(A), 3(B) and 3(C), col. 8, lines 12-35 and col. 9, lines 1-28).

As to the limitation, "multiple nodes comprising parent and children nodes, at least some of the parent nodes and their associated children nodes having EID that are unique for the associated node," Simonetti does not explicitly indicate that at least some of parent nodes and their associated children nodes have EIDs that are unique for the associated node.

However, Kothuri discloses unique identifier of the corresponding node: an identifier of a parent node and an identifier of a child/sibling node (col. 4, lines 1-14).

Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to combine the teachings of Simonetti with the teachings of Kothuri so as to obtain unique identifier for the associated node (.). This combination would have a system that provides for effective management of data that are inherently multi-dimensional (e.g., geographical, multi-media) (Kothuri – col. 3, lines 18-31) and each higher-level node is designed to encompass or contain its children nodes (Kothuri – col. 3, lines 50-55). Also, this system has a way to improve the searching and retrieving a tree structure (Simonetti - col. 5, lines 20-23) and optimization for search on a plurality of search values without the need to generate and store search table for each search value values (Simonetti - col. 5, lines 28-32) and reduce the amount of required storage area (Simonetti - col. 4, lines 60-64) in the searching in the hierarchical tree structures environment.

8. Claims 20-23, 29, 32-36, 44-47 and 50-53 are rejected under 35 U.S.C. 103(a) as being unpatentable over US Patent No. 5,295,261 issued to Simonetti in view of US Patent No. 6470,334 issued to Kothuri et al. (herein Kothuri) and further in view of US Patent No. 6,151,601 issued to Papierniak et al. (hereinafter Papierniak).

With respect to claims 20-23, Simonetti in view of Kothuri discloses a system for determining context as discussed in claim 1.

As to the limitations, "wherein the tree structure does not include any nodal associations with businesses or services; wherein the computer-readable media is embodied on a mobile computing device; wherein the computer-readable media is embodied on a handheld mobile computing device and wherein the computer-readable media is accessible to a mobile computing device via the Internet." Simonetti in view of Kothuri does not explicitly indicate business context, wireless/mobile and Internet.

However, Papierniak discloses business context, wireless/mobile and Internet (abstract, col. 1, lines 10-40, col. 3, lines 56-67, col. 4, lines 1-67, col. 10, lines 8-67 and col. 11, lines 32-61).

Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to combine the teachings of Simonetti in view of Kothuri with the teachings of Papierniak so as to have a system for multiple hierarchical tree structures for storing data. This combination would provide a system for designing future products accessible via and for web-based application (Papierniak – col. 2, lines 60-65) and for users or customer to make intelligence decisions and take timely actions

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to achieve their business goals (col. 4, lines 5-15) in the context-aware application computing and ubiquitous computing environment.

With respect to claims 29 and 32-36, Simonetti in view of Kothuri discloses a system for determining context as discussed in claim 24.

As to the limitations, "wherein the information comprises a universal resource locator (URL); wherein the organization-specific view has no context outside of the organization; wherein the computer-readable media is embodied on a mobile computing device; wherein the computer-readable media is embodied on a desktop device; wherein the computer-readable media is embodied a handheld mobile computing device; wherein the computer-readable media is accessible to a computing device via the Internet," Simonetti in view of Kothuri does not explicitly indicate URL, wireless/mobile and Internet.

However, Papierniak discloses URL, wireless/mobile and Internet (col. 12, lines 61-67 and col. 13, lines 1-8; abstract, col. 1, lines 10-40, col. 3, lines 56-67, col. 4, lines 1-67, col. 10, lines 8-67 and col. 11, lines 32-61; col. 7, lines 55-67 and col. 8, lines 1-31).

Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to combine the teachings of Simonetti in view of Kothuri with the teachings of Papierniak so as to have a system for multiple hierarchical tree structures for storing data. This combination would provide a system for designing future products accessible via and for web-based application (Papierniak – col. 2, lines 60-65) and for users or customer to make intelligence decisions and take timely actions

to achieve their business goals (col. 4, lines 5-15) in the context-aware application computing and ubiquitous computing environment.

With respect to claims 44-47, Simonetti in view of Kothuri discloses a method for determining context as discussed in claim 37.

As to the limitations, "wherein at least one of the nodes of the one or more second hierarchical tree structures has a good or a service associated with it, and wherein the traversing comprises locating a good or a service associated with a node and consuming the good or service; wherein the accessing of the first and the one or more second hierarchical tree structures comprises accessing tree structures that are locally available on a mobile computing device; wherein the accessing of the first and the one or more second hierarchical tree structures comprises accessing at least one of the trees via a network medium; wherein the accessing of the first and the one or more second hierarchical tree structures comprises accessing at least one of the trees via the Internet," Simonetti in view of Kothuri does not explicitly indicate business context, wireless/mobile and Internet.

However, Papierniak discloses business context, wireless/mobile and Internet (abstract, col. 1, lines 10-40, col. 3, lines 56-67, col. 4, lines 1-67, col. 10, lines 8-67 and col. 11, lines 32-61).

Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to combine the teachings of Simonetti in view of with the teachings of Papierniak so as to have a system for multiple hierarchical tree structures for storing data. This combination would provide a system for designing

future products accessible via and for web-based application (Papierniak – col. 2, lines 60-65) and for users or customer to make intelligence decisions and take timely actions to achieve their business goals (col. 4, lines 5-15) in the context-aware application computing and ubiquitous computing environment.

With respect to claims 50-53, Simonetti in view of Kothuri discloses a computer-readable media having computer readable instructions for determining context as discussed in claim 48.

As to the limitations, “wherein the computing device automatically determines its location context; wherein the computing device is a handheld computing device; wherein the computing device is a mobile computing device; wherein the computing device is a desktop device; and wherein the computing device is a handheld computing device that automatically determines its location context,” Simonetti in view of Kothuri does not explicitly indicate business context, wireless/mobile and Internet.

However, Papierniak discloses business context, wireless/mobile and Internet (abstract, col. 1, lines 10-40, col. 3, lines 56-67, col. 4, lines 1-67, col. 10, lines 8-67 and col. 11, lines 32-61).

Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to combine the teachings of Simonetti in view of Kothuri with the teachings of Papierniak so as to have a system for multiple hierarchical tree structures for storing data. This combination would provide a system for designing future products accessible via and for web-based application (Papierniak – col. 2, lines 60-65) and for users or customer to make intelligence decisions and take timely actions

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to achieve their business goals (col. 4, lines 5-15) in the context-aware application computing and ubiquitous computing environment.

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Contact Information

9. Any inquiry concerning this communication should be directed to Anh Ly whose telephone number is (703) 306-4527 or via E-Mail: **ANH.LY@USPTO.GOV**. The examiner can be reached on Monday - Friday from 8:00 AM to 4:00 PM.

If attempts to reach the examiner are unsuccessful, see the examiner's supervisor, Kim Vu, can be reached on (703) 305-4393.

Any response to this action should be mailed to:

Commissioner of Patents and Trademarks

Washington, D.C. 20231


or faxed to: (703) 746-7238 (after Final Communication)


or: (703) 746-7239 (for formal communications intended for entry)

or: (703) 746-7240 (for informal or draft communications, or Customer Service Center, please label "PROPOSED" or "DRAFT")

Hand-delivered responses should be brought to Crystal Park II, 2121 Crystal Drive, Arlington, VA, Fourth Floor (receptionist).

Inquiries of a general nature or relating to the status of this application should be directed to the Group receptionist whose telephone number is (703) 305-3900.

AL 
May 3rd, 2003


HOSAIN T. ALAM
PRIMARY EXAMINER